

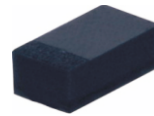
CDSUR400-HF

$I_o = 100\text{mA}$

$V_R = 80\text{ Volts}$

RoHS Device

Halogen Free

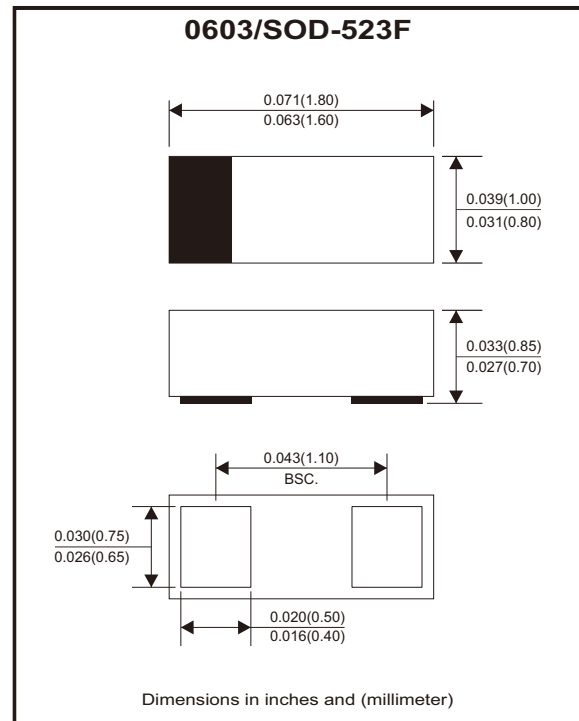


Features

- High speed.
- Designed for mounting on small surface.
- Extremely thin/leadless package.
- Low leakage current.
- High mounting capability, strong surge withstand, high reliability.

Mechanical data

- Case: 0603/SOD-523F standard package, molded plastic.
- Terminals: Gold plated, Solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Mounting position: Any.
- Weight: 0.003 grams(approx.).



Circuit Diagram



Maximum Rating (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Repetitive peak reverse voltage		V_{RRM}			90	V
Reverse voltage		V_R			80	V
Average forward current		I_o			100	mA
Forward current, surge peak	8.3 ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}		1000		mA
Power dissipation		P_D			400	mW
Thermal resistance	Junction to ambient	$R_{\theta JA}$			250	$^\circ\text{C/W}$
Operating temperature range		T_j	-40		+125	$^\circ\text{C}$
Storage temperature range		T_{STG}	-55		+125	$^\circ\text{C}$

Electrical Characteristics (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 100\text{ mA DC}$	V_F			1.0	V
Reverse current	$V_R = 80\text{V}$	I_R			0.1	μA
Capacitance between terminals	$f = 1\text{MHz}$, and 0.5V DC reverse voltage	C_T		3		pF
Reverse recovery time	$V_R = 6\text{V}$, $I_F = 10\text{mA}$, $R_L = 50\text{ ohms}$	T_{rr}		4		nS

Rating and Characteristic Curves (CDSUR400-HF)

Fig.1 - Forward Characteristics

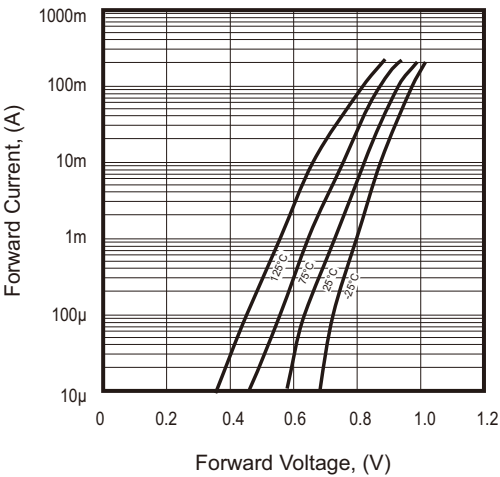


Fig.2 - Reverse Characteristics

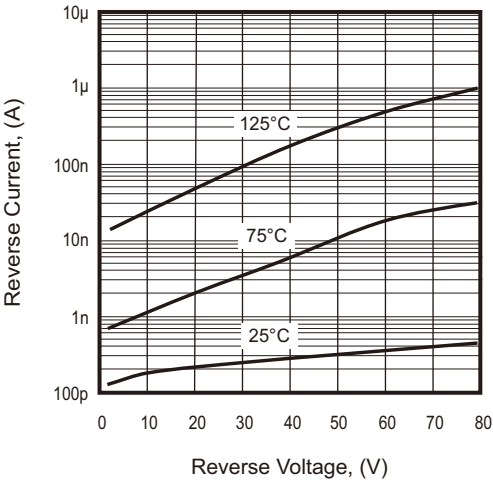


Fig.3 - Capacitance Between Terminals Characteristics

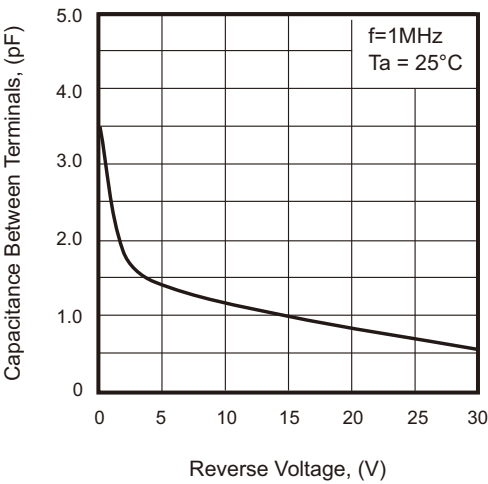
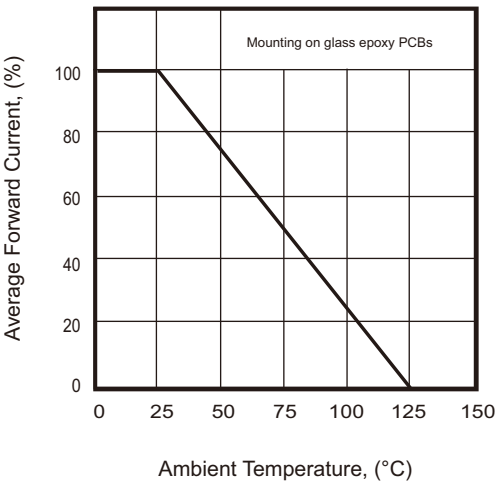
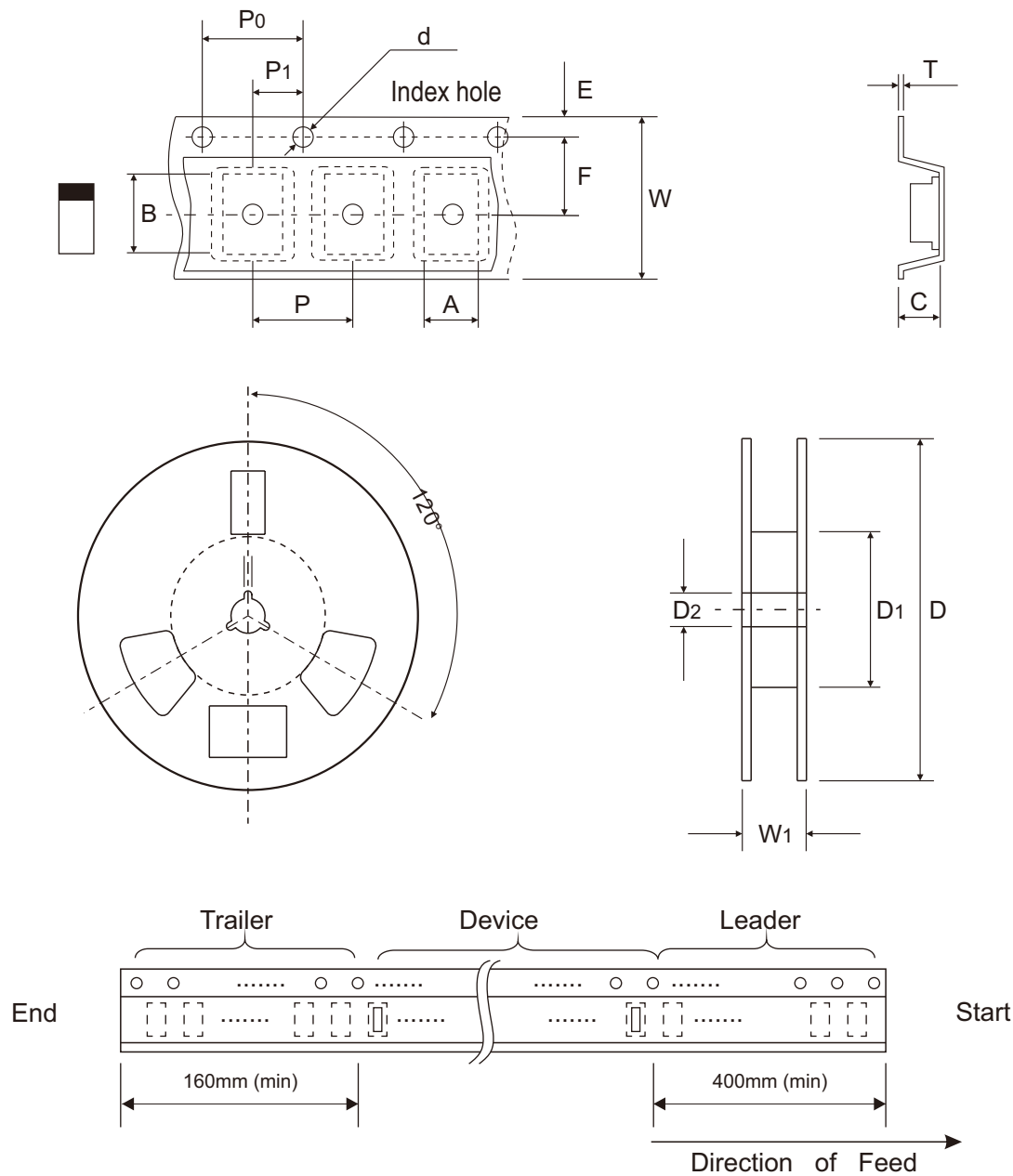


Fig.4 - Current Derating Curve



Reel Taping Specification



0603 (SOD-523F)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.16 ± 0.10	1.90 ± 0.10	0.95 ± 0.10	$1.50 + 0.10$ $- 0.00$	178.00 ± 1.00	60.00 ± 0.50	13.50 ± 0.20
	(inch)	0.046 ± 0.004	0.075 ± 0.004	0.037 ± 0.004	$0.059 + 0.004$ $- 0.000$	7.008 ± 0.039	2.362 ± 0.020	0.531 ± 0.008

0603 (SOD-523F)	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.22 ± 0.03	8.00 ± 0.20	$12.00 + 0.50$ $- 0.00$
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.009 ± 0.001	0.315 ± 0.008	$0.472 + 0.020$ $- 0.000$

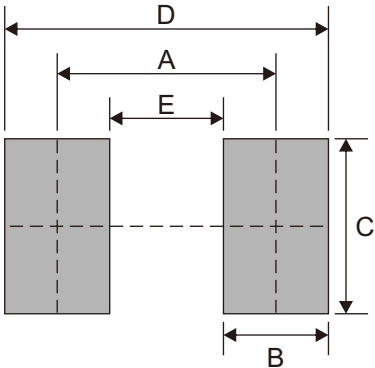
Marking Code

Part Number	Marking Code
CDSUR400-HF	S1



Suggested P.C.B. PAD Layout

SIZE	0603/SOD-523F	
	(mm)	(inch)
A	1.25	0.049
B	0.60	0.024
C	1.00	0.039
D	1.85	0.073
E	0.65	0.026



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
0603/SOD-523F	4,000	7